WOMAN WORKERS OF BELGIUM TO SUFFER MOST FROM ENORMOUS INDEMNITY LEVIED BY GERMANY

Wives and Maids, a Great Many of Them Engaged in Lace Making, Will Suffer in Payment of $50,000,000 — Belgium Has Been Plunged Into War Many Times, and It Has Fallen to the Woman Workers to Help in Payment of Indemnities — The Lace-Making Industry. Woman Agriculturists of the Little Country.

SOCIAL LIFE AMONG THE LACE MAKERS OF BELGIUM.

SMALL FARM IN THE SOUTH OF BELGIUM WORKED BY WOMEN.

THE payment of the enormous indemnity of $50,000,000 levied on Belgium by the German government, will fall heaviest on the woman wage-earners, and particularly the lace-makers of the country, who bring in approximately the largest single revenue.

These wives and maids of the little beehive kingdom, which is about one-fourth as large as the state of Ohio in area, and with a population 50 per cent greater, will not have time to weep for their husbands and sweethearts who have gone to the war, for they will be too busy making possible the payment of this sum. If it is not paid in money it must be paid in the art treasures in which the people of the kingdom take a national pride.

When it comes to the wage-earning capacity of the sexes in Belgium favors are equal, and in helping out in this great calamity which has overtaken the country the women are simply fulfilling their destiny, for from the earliest centuries it has fallen to them to raise a large part of the revenues for the payment of the indebtedness into which their country has been plunged from time to time by the wars of other nations.

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Since the siege of Liege, and the taking of Brussels, if they were asked if they considered Belgium the "cockpit" of Europe, they would doubtless say, yes, and that the rules employed in the present game would not pass muster in a cock fight in one of the rural districts of Mexico.

That these wives and maids are courageous, and even plucky to the last, was shown when early in the campaign the Germans attacked the national arms factory at Herstal, just outside of the city of Liege. The men had joined their regiments and the woman workers in the factory swore the German troops should not take it. So they armed themselves with revolvers and other weapons with which they actually repulsed several charges of the German Uhlans.

When the ammunition was exhausted the women barricaded themselves in the houses, from which they poured boiling water on the German soldiers in the strets, disabling 2,000 of them by wounds and scalds. For several days after, they were repaid for their heroic defense by seeing the Belgian colors float over the factory building.

The home industries of Belgium, such as lace making, gloves and corset making, linen weaving, basket and straw plaiting, and even the making of parts of firearms, are largely carried on by the women and children. It must be understood by the term "home industries" is meant to imply trades carried on either in the home or in a workshop attached to it by persons who are working for an employer, either directly or through an intermediary, the employer as a rule supplying the raw material and disposing of the produce. The term does not include the work of independent artisans who work at home and dispose of their produce in the market or to customers of their own.

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The industries are carried on largely in Flanders, Brabant, around Brussels and a portion of the province of Liege. Many of the younger people have gone to the factories, as wages are a trifle better and the hours of work more limited.

As early as the sixteenth century the lace industry of Flanders, when every industrial art fled from religious persecution, alone upheld itself and saved the country from utter ruin. And in the great wars since then it has gone far toward relieving the financial situation incident to them. It forms an abundant source of wealth to Belgium, enabling the people of its superannuated cities to support themselves. In 1861 one hundred thousand women were said to have been engaged in the art of lace making. Since then machine-made lace has lessened the number engaged at home in the work, for by machinery as many yards of lace can be made in an hour as one could make by hand in a year. But the last industrial census taken in 1896 shows that there were 50,000 persons, a large majority of them women, still engaged in making hand-made lace.

France alone buys of Belgium more valenciennes lace than all the other countries united, it being estimated that she pays annually $4,000,000 for this particular lace. We are accustomed to consider this a French lace—and it was originally—but the work has long since died out in its native city, and it is now the most important branch of the pillow lace trade Belgium manufactures.

As early as 1656 the Belgians were making this lace as fine and beautiful and in exactly the same pattern as the French fabric. And by 1684 there were left in the town of Valenciennes, France, only three score lace workers.

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Today the best of this lace is made in Ypres, west Flanders. The tedious process required to make it accounts for its great cost, an expert lace maker being able to complete hardly more than a third of an inch of a wide width in a week; and it is estimated it would take one twelve years to complete enough for a flounce for a dress; such as would sell for $400 a yard.

In passing through the streets of Antwerp, Brussels, Ypres and other towns of Belgium where there is a large industry in hand-made lace one often sees whole families seated in front of their houses engaged in the work. It is not strange that wonderful patience and perseverance is depicted on the faces of these women, when one recalls that most of them at five years of age begin their apprenticeship, or enter schools for lace teaching, and by ten years they earn their maintenance. It is also true that many of them are blind before thirty, but many more continue to a very old age, and are valuable to the industry owing to their usefulness in preserving the lace patterns which have been in use for centuries, and in making necessary innovations.

These women, when in the prime of life, working on an average of eleven and a half hours a day, can earn about 2 cents an hour, or if very expert and there are not too many interruptions with family cares, can earn almost 30 cents a day.

They are the direct and natural representatives of the Flemish craftsmen, proud burghers of Brabant and the Walloons of Liege and Luxemburg. To them lace-making is not only an art, but a tradition, and so few innovations or improvements have been made in the centuries that if a Guipure laceworker of the early sixteenth century should chance in Bruges today she could go to the house of any one of the workers in that kind of lace and find the pillow, bobbins and all implements used, exactly of the same pattern as those she laid down when her lacemaking days were over.

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It is to be hoped that war will not deal too heavily with this old city of Bruges, whose history dates from the third century and whose belfry tower, the most beautiful of its kind in the world, in the great square, is made familiar to every school child in America by Longfellow's fine poem.

The Grouthus mansion, an ancient turreted house of the fifteenth century located in Bruges, contains the finest collection of Flemish lace in existence. The whole country around this quaint city is a fertile plain and though intersected by canals there is a scarcity of drinking water, which necessitates each house having its rainwater tank. Owing to the unusual demand just now the inhabitants are suffering from a lack of drinking water.

Bruges itself and the surrounding country is full of lace workers, some working in factories, or workshops, others working at the cheap coarse torchon laces. It is very restful to see them sitting in the sun by quiet canal side, or outside their houses in the stone-cobbled lanes of the old city, where their house door opens into a room as dark and narrow as a fox earth. But now there is no rest there, and the powder smoke must roll away before the peaceful occupations can be resumed and one sees them again seated before their doors with their pretty fluted caps that are like a halo around some of the old faces.

The lacemakers of Brabant, the province in which Brussels is situated, have cleaner cut features and a more artistic headdress than those of Bruges, while those of Campine are about the only ones whose caps show the beauty of the art in which they are engaged.

WHOLE FAMILIES ENGAGED IN THE WORK OF LACE MAKING IN THE COBBLED STREETS OF BRUGES.

These women make the beautiful brussels lace, the finest of which is made in the city of Brussels itself at the Beguinage, a religious house for young girls and widows who have not taken the vows, and is the lace of which visitors to the country hope to bring away a piece.

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The manufacture of brussels lace is very curious. One person works the flowers, another the leaves and so on. They are all sold separate and you will see a pretty sprig for which the worker only gets about 12 cents. The best of these flowers are also made in Brussels, and there is a very unhappy part connected with their composition. Often coming soiled from the hands of the lacemakers, they have a reddish yellow cast, and in order to obviate this evil the worker previous to sewing the flowers on the ground work, places them in a packet of white lead and beats them with the hand. The lead powder flying off is very injurious to the health of the lace cleaner.

King Albert's palace at Brussels, which is now in possession of the Germans, and the beautiful royal palace at Laeken are filled with wonderful treasures and masterpieces of art, among them rare laces and tapestries worth a king's ransom.

In the palace at Antwerp are also specimens of that exquisite mechlin lace, called the "queen of lace" because of its filmy texture, which makes it more delicate and transparent than valenciennes. This dainty lace was formerly much esteemed for headdresses and the high standing collars or ruffs which Queen Elizabeth made so popular and which are now in fashion in a modified form.

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The smuggling of lace from Belgium into France causes extreme vigilance on the part of the customs officers of the latter country. And so original and ingenious are some of the methods that they would make a New York dressmaker or diamond dealer sit up and rub their eyes.

At one period in the nineteenth century the government was much mystified over the large amount of lace that they knew was being smuggled into France, and yet they could find no clew as to the means used. After a great deal of vigilance they discovered that dogs were trained for the purpose. A dog was treated with unusual kindness and attention at home, being fed on the fat of the land, then after a few weeks was sent across the frontier into Belgium, where he was tied up, half starved and generally ill treated. When he became very emaciated the skin of a larger dog was fitted to his body, and the intervening space filled with lace. The dog was then set free, when he would make his way home, where he, of course, received a warm welcome.

When the smoke of battle clears away sufficiently the lacemakers of both the north and south of the kingdom will resume their work; as history shows that the vicissitudes of war have never entirely crippled the industry.

In the reign of Charles II of England a prodigious amount of lace was bought in Flanders, and, while Charles prohibited its import, in order to stimulate the industry in his own kingdom, he did not curtail the supply of the richest and most beautiful for himself and favorites.

That prince of snobs, Samuel Pepys, tells delightfully in his quaint English: "My wife and I to my lord's lodging, where she and I stayed walking in Whitehall gardens, and in the garden saw the finest smocks and petticoats of Lady Castlemaine's laced with rich lace at the bottom, that ever I saw, and it did me good to look at them."

England's sturdy George II, who fought so bravely at Oudenarde, was not forgetful even in time of war of rich Flanders lace for his ruffles and jabots. And our own revered George Washington had a taste for the filmy luxury, as is shown in his orders sent abroad for clothing. The great Napoleon was a connoisseur of lace and made the wearing of it obligatory at his court, being personally fondest of brussels and chantilly.

Besides the large number of women engaged in the lace industry, there are in Belgium over a hundred thousand woman agriculturists in their own right, and about a hundred thousand more who help their husbands farm in times of peace, and now that the country demands every man that can carry arms to defend her, on the women will fall the entire work of the farm, as well as the factory work.

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The district known as the Herve, in the southeastern part of the kingdom in the province of Liege, is the great grazing country. On every side are little hillocks covered with fine green grass, not a ploughed field or furrow breaking the velvet carpet of the landscape, the whole country being one continuous pasture, where fat, sleek, spotted cows graze.

Here again, where the living is most primitive, the role of the wife is more important than that of the husband. She directs and carries on the dairy, the largest source of revenue, making the butter and cheese, looking after the chickens and pigs; for it is from Herve that large numbers are exported to Germany, and often when the tourist fancies he is eating the delicious pork from the Black Forest he is only indulging in a bit of ham from Herve.

The woman being a better trader than the man, markets the produce of the farm, and so useful and necessary is she in the agricultural districts that a widower seldom prolongs his state of single blessedness after three months.

The shops of Belgium are largely kept by the women, also the cabarets and larger restaurants, as this enables the men of the family to engage in other occupations, principally day labor, and thus the family income can be doubled.

Restaurant life in Belgium is not carried to the excess that it is in France, particularly in Paris, but the small cabaret or drinking place is the social club of the workingman. After his day's work is done he goes there for his cheap liquor and companionship. He may discuss the different phases of socialism, but more likely the last pigeon race, for that is the national sport of the small workingman of Belgium, who frequently puts too much of his meager wages on a favorite bird. Horse racing is increasing over the kingdom, but it is for the man of larger means.

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The good fellowship and congenial social life of the Belgians is especially commendable when one recalls that two different nations speaking two different languages dwell side by side in this little kingdom. In the northern part are the tall, big boned, fair Teutons or Flemish, straightforward, practical and lacking in imagination, who take their pleasures seriously, and who speak, among the people, the German language or a dialect of it.

While to the south are the Walloons or Latin race, speaking French, or a patois. They are smaller and dark, with all the exuberance of their Latin blood, jovial and gossipy, enjoying life as they find it, fighting the battles of their country with energy and enthusiasm, finding it hard to be convinced that it is possible for any of the nations no matter how great to whip their jewel of a kingdom.

The arts and crafts of the two different parts of the country show the character of the people, those of the north showing the stolid patience of the Teuton blood, with some of its harshness. In the south the laces, embroideries and tapestries in design and workmanship are lighter and airier, the caps and aprons of the women gayer.

All the world knows that Matilda of Flanders, the consort of William the Conqueror, set the fashion in tapestries when she and her women worked the wonderful Bayeux tapestry, which after more than eight hundred years is still one of the great masterpieces of the world.

This strip of goods, 214 feet long by twenty inches wide, is preserved in the public library of Bayeux. Its value could not be estimated, but Emperor William can be trusted to leave it where it is, for like his grandfather, the old Emperor William I, he claimed not to want the art treasures of the countries he invades.

Between the Battles.

THE public, waiting impatiently from day to day for decisive war news and feeling that the campaigns are progressing with a slowness unfitted to the spirit of war, may console themselves by casting a backward glance to the long and weary weeks and months that intervened between any decisive actions in our own civil war.

Consider this:

From the battle of Bull Run, fought on July 21, 1861, until the battle of Seven Pines, on the 6th of the following June, nearly eleven months, there was no pitched battle between the main armies of the north and south in Virginia, the battleground of the war. Then, from Antietam, on September 17 of that year, until the battle of Fredericksburg, on the 8th of December, there was no more fighting between them; nor did they fight again, although they lay within cannon shot of each other for five months more, until they met at Chancellorsville, on the 1st of May, 1863.

They fought no more from then until Gettysburg, July 1. Then from that time, it was full ten months before they grappled in the Wilderness, early in May, 1864.

In short, there were great intervals between battles that reached out into months and seasons and twice into nearly a year. Compared to those leisurely campaigns, the present campaign, even on the part of the Russians, who appear the slowest, seems like a Kansas cyclone.

ANTOFAGASTA AND ITS NEW TRANSCONTINENTAL ROUTE ACROSS SOUTH AMERICA

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ANTOFAGASTA, Chile.

I HAVE just had a mighty slide from the roof of the world to the level of the sea. I have come from the top of the Andes, in Bolivia, to the Pacific ocean, in Chile, and am now writing in Antofagasta, the chief port of one of the most desert parts of the world. This town lies half way down the great South American desert. It is 2,400 miles from Panama, and two days and more from Valparaiso, the New York of Chile. It belongs to Chile, and it forms its chief gateway to Bolivia and the mighty treasure vaults of the Andes. It is also the gateway to the nitrate fields and to other wonders of this arid part of the world. Through it flows most of the borax used by mankind, and out of it come vast quantities of copper and tin.

Within a few miles of Antofagasta is Chuquicamata, where the Guggenheim syndicate has some of the largest deposits of low-grade copper on earth. They can be worked at a profit and will soon be supplying the greater part of the copper from the South American continent. Further north, at Uyuni, are tin mines, and down the same road comes the tin of Potosi and Oruro. Indeed, a river of minerals is already flowing through the port, and the outlook is that the stream will increase with the development of the enormous deposits of the interior. Antofagasta is also the beginnine of the new Transandine road that is to cross the continent by way of Uyuni, Tupiza and the Argentine system. Only about a hundred miles of this railroad remains to be built, and when it is completed travelers can go from here to Buenos Aires in three or four days.

The Antofagasta of the present shows the hope of the future. It grows like the thistles on the mountain farms of Virginia, and today looks more like an American town of our arid southwest than anything I have yet seen in South America. The houses are mostly of wood, roofed with galvanized iron. The streets are wide and many of them unpaved. The population reminds one of our frontier. The characteristic sights of the Andes have disappeared. There are no blanketed Indians and no llamas. Wagons, carts and cabs have taken their places. The town is cosmopolitan. You hear every language spoken as you move through the streets, and are jostled by British and Germans, Austrians and French. There is also a large proportion of Chileans. The people are whites, and the red and mixed races seem to be confined to the Andes.

The harbor of Antofagasta is poor, but it is filled with shipping and the wharves are piled high with goods. There are stacks of Oregon pine, piles of bags of American flour and cords of steel rails and structural steel brought in by our steel trust. The place is the busiest of all the ports between Valparaiso and Panama, and now that the canal is completed it will send northward the nitrate, borax, copper, tin and other minerals now pouring into it from the regions behind.

LLAMAS AT ONE OF THE STATIONS IN CHILE.

I came to Antofagasta from La Paz. My route was the one that I took fifteen years ago, when I rode three days across the plateau on the top of the wagon that carried the Bolivian mails. This was from La Paz to Oruro, a railway station about 600 miles from where I now am. We pelted the mules' ears with stones and kept them on the gallop from daylight to dark. It was cold and we almost froze at the rude inns of the highlands. From Oruro to the sea I came on the train.

My journey this year was all the way in a comfortable car, and the trip to Antofagasta took only two days. Our train had Bolivian millionaires, English, Austrian and American commercial travelers, miners of a half dozen different nationalities, and a number of tourists. We stopped for six hours at Oruro and there got sleeping compartments for the rest of the journey. We had dining cars on the trains and we traveled in comparative ease.

At the same time the fares were much cheaper. Our sleeping berths cost us $3 a night, and the first-class passenger fare was about $24 with a charge for our baggage of about 2 cents per pound. I have a number of trunks and my extra baggage cost half as much as the fare. The price for meals on the diner was $1.50 gold, with an extra charge for mineral water, which was about twice what the same water would cost in the United States.

The first part of this trip was over the high plateau of Bolivia. This is a semi-desert country about 500 miles long and of varying width. Its only vegetation is half-starved grass and dry bushes, but it feeds thousands of sheep, alpacas and llamas, and we had animal life in sight almost all of the way down to Oruro. Now and then we passed a village of Indians and always there were the scattered huts of the Aymaras spotting the plain. The latter were round in shape and many of them had roofs made of mud bricks, symmetrically joined. A single family often had several of these round huts and in addition corrals for its stock.

At one of the stations where we stopped to get our dining car we saw a great drove of llamas. They had brought fuel to the railway for shipment to La Paz and were about to start back with merchandise for their return trip to a town in the hills. The fuel was what I might call Bolivian cord wood. It consisted of the limbs of stunted evergreens, each as big around as your finger. They had been grubbed from the mountains and packed up in bundles about three feet square and two feet in thickness.

Further down the road we saw great piles of peat-moss, another fuel that grows in the Andes. The moss is of a woody resinous nature, and when lighted gives out a great heat. It grows on the top of the ground in disks ranging in size from the diameter of a tin wash basin to that of a tube.

All along the railroad we could see also the piles of English or Australian coal used by the engines. This is in the shape of briquettes, laid up in regular order. At Uyuni, where the new road for the Argentine is to join the La Paz-Antofagasta line, I saw thousands of these bricks. They were corded up, as it were, and around the edges of the pile I noticed that a white band had been painted. I asked the reason, and was told that it was to prevent the Indians from stealing the coal. Such fuel in the high Andes is worth $50 a ton.

Our ride over the Bolivian plateau was through a country as smooth as a floor. The plateau is covered with stones. It is supposed to have been at one time a vast inland sea, and sea shells are often found upon it. Prof. Agassiz said that the water level of the ancient Andean sea was three or four hundred feet higher than the present level of the plateau. If so, it has all disappeared, as today the only large bodies of water found there are in the lakes Titicaca and Poopo. The latter is a brackish lake joined to Lake Titicaca by the River Desaguadero. It is only about one-third as large as Lake Titicaca. Lake Poopo is the home of many wild fowls, and the region about it is filled with birds of many kinds, including wild ducks and flamingoes. The lake has no visible outlet, but the waters from Titicaca are always flowing into it and there must be some underground channel that carries the surplus away.

Oruro is thirty-six hours from Antofagasta. It is a thriving mining town, situated 12,500 feet above the sea in the heart of the Bolivian desert. It has about 20,000 people, and it does a great trade with the tin mining regions of the interior. Its population rises and falls as tin goes up and down. The town has a government palace, a theater, a public library and a mineral museum. It has many business houses and some very respectable stores. The streets are paved with cobbles, and a rickety carriage carried me at a cost of $5 from one end of the town to the other. It has a plaza upon which the public buildings face, but altogether it is exceedingly dreary.

ON THE WAY TO THE RAILWAY STATION IN LA PAZ.

Leaving there, I took the narrow gauge railroad down to the sea. The track has now a width of only thirty inches, but it is to be widened to a gague of forty inches, which is the standard gauge for this part of the world. The main line starts at Antofagasta and crosses a pass of over 13,000 feet at a distance of 223 miles from the coast. It then descends to a level of more than 12,000 feet, which it keeps practically all the way north to Oruro.

The trip from Oruro to the sea is over one of the most picturesque routes of the Andes. The most of the way is bleak and desertlike, but one sees several smoking volcanoes and also great salt lakes with green islands apparently floating upon them. After crossing the Chilean boundary we came to the great borax lakes. These are owned by the borax trust, and they supply the greater part of that mineral for the whole of the world. There are, in fact, only three or four places on earth where borax is found in large quantities. The most important is these lakes. Next in size are some mines on the plateau of Tibet in Asia, and last are the deposits found in Death Valley, Cal. The Chilean lakes seem to be covered with snow, and the snow is the borax that rises to the surface and forms a blanket or crust on the water so firm that men can walk on it. It looks like ice, and you feel like stopping the train for a skate. In some places the crust has been broken up into floating cakes and in others it is being taken out to be refined and shipped to the markets. Some of the borax is as clean as the whitest of spun silk; other pieces are dirty and look like snow that has lain for some time. On the shores of the lake are galvanized iron-roofed refineries, in which the stuff is prepared for the market. We were over an hour going by the largest of the lakes. It is right near the railroad. It is twenty-four miles long and is the greatest reservoir of borax in the world. Indeed, it is the chief source of the world's borax supply.

"Shortly after leaving this lake we came to the highest pass on the railroad. This pass crosses the coast range at about half a mile below the highest altitude of the road from Lima to Cerro de Pasco, and 1,500 feet less in height than that of the Peruvian Southern on its way to Lake Titicaca. Nevertheless, the height is 13,900 feet above the sea, and we found it bitterly cold at the crossing. The mountains on each side were dusted with snow, and beyond them were several great peaks covered with glaciers. On the way we passed the two mighty volcanoes of San Pedro and San Paulo, or, as we should call them in English, St. Peter and St. Paul. St. Peter is now active, and from it goes up a constant column of smoke, while along its sides runs a great bed of lava that looks as fresh as though it had not long since come from the crater. This lava is broken into millions of fragments. It extends for several miles along the slope of the mountains in plain view of the railroad.

St. Peter is one of the most symmetrical of the world's great mountains. It is as beautifully shaped as Fujiyama in Japan, Mount Cook in New Zealand, or Mount Moyon in Luzon. The mountain rises directly up from the plain. The plain is level, with only here and there a few pebbles or bowlders in sight. It is perfectly smooth except for these mighty windrows of lava, containing hundreds upon hundreds of millions of tons. The rock looks as though it had been broken into pieces by the hammers of giants and piled up by some intelligent force. It is a wonderful sight.

I have seen all of the great mountain ranges that wall the western side of this continent. The Andes are said to be the last of the great mountain masses shoved up out of the sea; and of all the highlands they are in many respects the most wonderful. From Panama to Patagonia they form a mighty geological garden such as can be seen in no other part of the world. The combinations of desert and rocks and sky give scenic effects beyond description. Parts of the Andes are more desertlike than the wilds of Arabia or the Sahara. They show you how the earth was made, and the terrible throes involved in its making. At times you seem to be traveling upon the very bedrock of the world, and again as though old mother earth, in her original nakedness of bare rock, were laid out before you upon the dissecting table. The walls of broken lava of which I have been writing are perhaps 300 feet high. The stones are dark red and they are piled up in regular masses, forming altogether a whole an hundred times the volume of our excavations at Panama. In other places the volcanoes have vomited sand. Again they have thrown out deposits of rock the size of a walnut, and still again mighty bowlders of a semi-metallic nature.

All about these volcanoes of St. Peter and St. Paul the scenery is magnificent, and right between them is a low crater as symmetrically shaped as though out out by a sculptor. This is of a dark red color.

Close to the volcanoes are the reservoirs that give Antofagasta its water supply. The water comes from the roof of the continent, and the pipes, carrying it down are 193 miles long. The reservoirs are at an altitude higher than the top of Pike's peak. The place is known as the Sloli spring. It has a flow of about 6,000 tons of water per day, the most of which goes to the towns on the ocean in pipes that are eleven inches in diameter.

After leaving Bolivia, the whole way down to the seacoast is through the desert. The only green spots are the railway stations watered by the pipe-line from the reservoirs above. The most important town is Uyuni. It has about 5,000 inhabitants, and it is the point where the branch road, now building to connect with the Argentine system, begins. Uyuni has also other roads to the great tin and copper mines nearby, the ore being shipped from there over the main line to the sea.

Some of the tin and silver still comes in on the backs of llamas, and that even from Potosi, which is 125 miles away. The llamas come in troops of 100 or more, and take fifteen days on the journey. A railway to that point is almost completed. A private railway connects Uyuni with the mining town of Pulacayo, which has 8,000 inhabitants. This is the center for the Huanchaca silver mines, now owned by a French-Chilean company. The Huanchaca mines are said to have given to the world nearly 5,000 tons of silver within the past twenty-five years, and they are still yielding enormously. The company uses electricity, getting its force from the Yura river, which has fall enough to develop 3,000 horsepower. The mines have twelve miles of tunnels, and they employ several thousand workmen.

Going from Uyuni down to the coast, we stopped at Ollague, where a branch line runs off to the Collahuasi copper mines, said to be among the richest in South America. This branch line reaches a height of 15,809 feet; and that of Potosi, north of Uyuni, reaches an altitude of 15,814 feet. Both of these roads are higher than any other railroads of South America except the Morococha branch of the Central Railroad of Peru, from where I tobogganed down the Andes on a handcar. That line has an altitude of 15,806 feet, exceeding the Potosi line by more than fifty feet. I understand that the line from Uyuni to the Argentine will cross a pass of 16,000 feet. If so, it will be the highest railroad of the world.

FRANK G. CARPENTER.